

Abstract

5 A fuel injector, in particular a high pressure injector for direct injection of fuel into a  
combustion chamber of an internal combustion engine having externally supplied ignition  
and mixture compression, is characterized in that a valve needle (20), which is movable  
axially along a longitudinal axis of the valve, has a specially designed valve closing section  
(28) on its downstream end. To open and close the valve, the valve closing section (28) works  
together with a fixed valve seat (27). Swirl-producing means (47) are arranged upstream from  
the valve seat (27) while a flattened face (29) running perpendicular to the longitudinal axis  
10 of the valve is provided on the downstream end of the valve closing section (28) downstream  
from the valve seat (27).

(Figure 3)



(51) Internationale Patentklassifikation 7 :

F02M 61/16, 61/18

A1

(11) Internationale Veröffentlichungsnummer: WO 00/12892

(43) Internationales  
Veröffentlichungsdatum:

9. März 2000 (09.03.00)

(21) Internationales Aktenzeichen:

PCT/DE99/02658

(22) Internationales Anmeldedatum: 25. August 1999 (25.08.99)

(30) Prioritätsdaten:

198 38 949.3

27. August 1998 (27.08.98)

DE

199 07 860.2

24. Februar 1999 (24.02.99)

DE

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(81) Bestimmungsstaaten: JP, US, europäisches Patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

Veröffentlicht

Mit internationalem Recherchenbericht.  
Vor Ablauf der für Änderungen der Ansprüche zugelassenen Frist; Veröffentlichung wird wiederholt falls Änderungen eintreffen.

(54) Title: FUEL INJECTION VALVE

(54) Bezeichnung: BRENNSTOFFEINSPRITZVENTIL

(57) Abstract

The invention relates to a fuel injection valve, especially to a high pressure injection valve for directly injecting fuel into a combustion chamber of a mixture-compressing, spark ignited internal combustion engine. The inventive fuel injection valve is characterized in that a valve needle (20) which can axially move along a longitudinal axis of the valve comprises a specially constructed valve closing section (28) which is situated at the downstream end of the valve needle. The valve closing section (28) interacts with a fixed valve seat (27) in order to open and close the valve. Swirl generating means (47) are arranged upstream from the valve seat (27), whereas a flattened area (29) which runs perpendicular to the longitudinal axis of the valve is provided downstream from the valve seat (27) at the downstream end of the valve closing section (28).

